

NAVAL INTELLIGENCE AND OCEAN SURVEILLANCE

The Navy Operational Intelligence Center (formerly known as the Navy Field Operational Intelligence Office), is located in Suitland, Maryland and is responsible for the production of intelligence derived from multiple collection sources, including ocean surveillance information. Specifically, the Center is responsible for producing analyses and assessments of the operations, tactics and warfighting doctrine of foreign maritime forces. TAB A illustrates the relationship of the Center to the Office of Naval Intelligence.

Beginning in the 1960's, as the Soviet Union began a major expansion of its aircraft, submarine and surface ship inventory, it became increasingly clear to U.S. decision-makers that they must develop a method of determining the locations and operations of potentially hostile naval units with some degree of precision and regularity. Consequently, in 1971, the Navy Operational Intelligence Center was officially assigned the responsibility of providing accurate and timely warning of foreign naval activities which might ultimately result in a threat to the security of the United States and/or its allies. The component of the organization with the responsibility for this "ocean surveillance" mission is the Current Operations Department (formerly known as the Naval Ocean Surveillance Information Center). In 1978, the Department was officially designated as a member of the Department of Defense Indications and Warning Network. In conjunction with a world-wide network of intelligence correlation centers, which support the tactical needs of local and theater commanders, the Department maintains an accurate accounting of the location of foreign military aircraft, surface ships and submarines, as well as foreign merchant and fishing fleets, operating in all maritime regions of the world. TAB B illustrates the relationship among the various ocean surveillance correlation centers and explains the national responsibilities of the Navy Operational Intelligence Center.

The ocean surveillance mission of the Current Operations Department is performed on a 24-hour, seven-day-a-week basis, throughout the year. Watch teams of intelligence analysts provide around-the-clock monitoring of the world's oceans and prepare detailed reports for dissemination to National defense planners and U.S. Navy fleet commands.

The Current Operations Department prepares operational intelligence reports and ocean surveillance information for the Joint Chiefs of Staff (JCS), the Department of the Navy, the Defense Intelligence Agency and other government organizations in direct support of the planning and execution of military operations, as well as for identifying potential threats to the security of the United States.

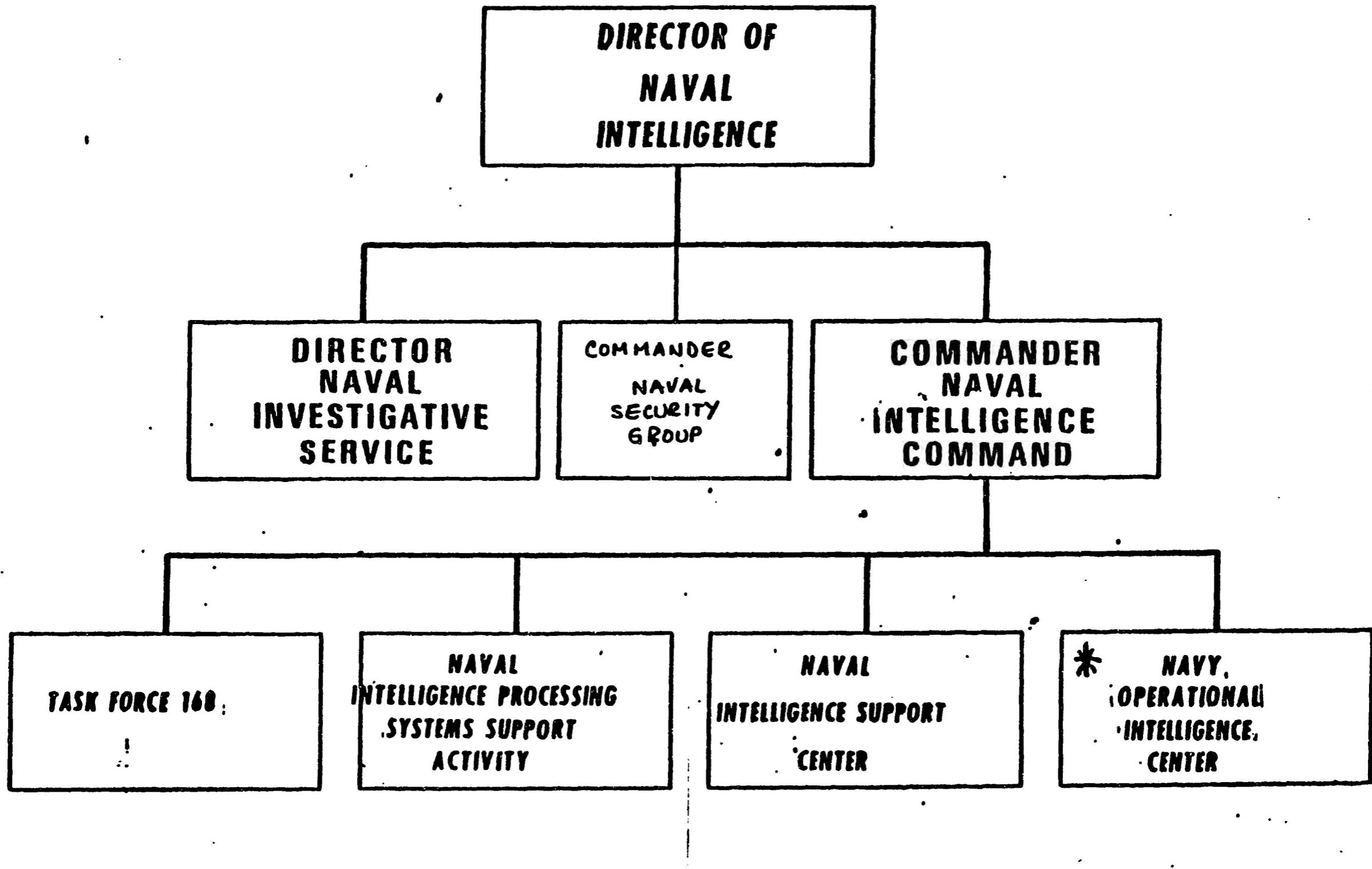
To perform its intelligence reporting mission, the Current Operations Department depends on data from a variety of world-wide information gathering resources, including electronic surveillance systems, photographic surveillance systems and various human observations. The location of these systems and observers varies. For example, there is an extensive network of underwater acoustic sensors distributed throughout the oceans of the world; personnel on U.S. military ships, aircraft and submarines provide first hand observations of their daily interactions with foreign naval forces; and space-based systems provide broad coverage of world ocean areas. TAB C illustrates the flow of collected intelligence within an ocean surveillance correlation center. Although functionally identical, both the degree of processing and the areas of interest vary considerably among correlation centers at various levels.

Although the Department of Defense is the principal consumer of intelligence produced by the Navy Operational Intelligence Center, ocean surveillance information has also provided law enforcement officials with valuable insights into domestic criminal activities. For example, in 1978, ocean surveillance information was provided to the Drug Enforcement Agency and U.S. Coast Guard during drug smuggler interdiction operations. For four and a half months, this information was used for the tracking and seizure of 40 oceangoing ships attempting to smuggle more than a million pounds of marijuana into the United States.

To summarize, the Navy Operational Intelligence Center conducts research and analysis of data obtained from a variety of sources, including ocean surveillance information, and, through an intellectual fusion process, assesses the potential threat to the security of the United States in general, and its operational Navy in particular.

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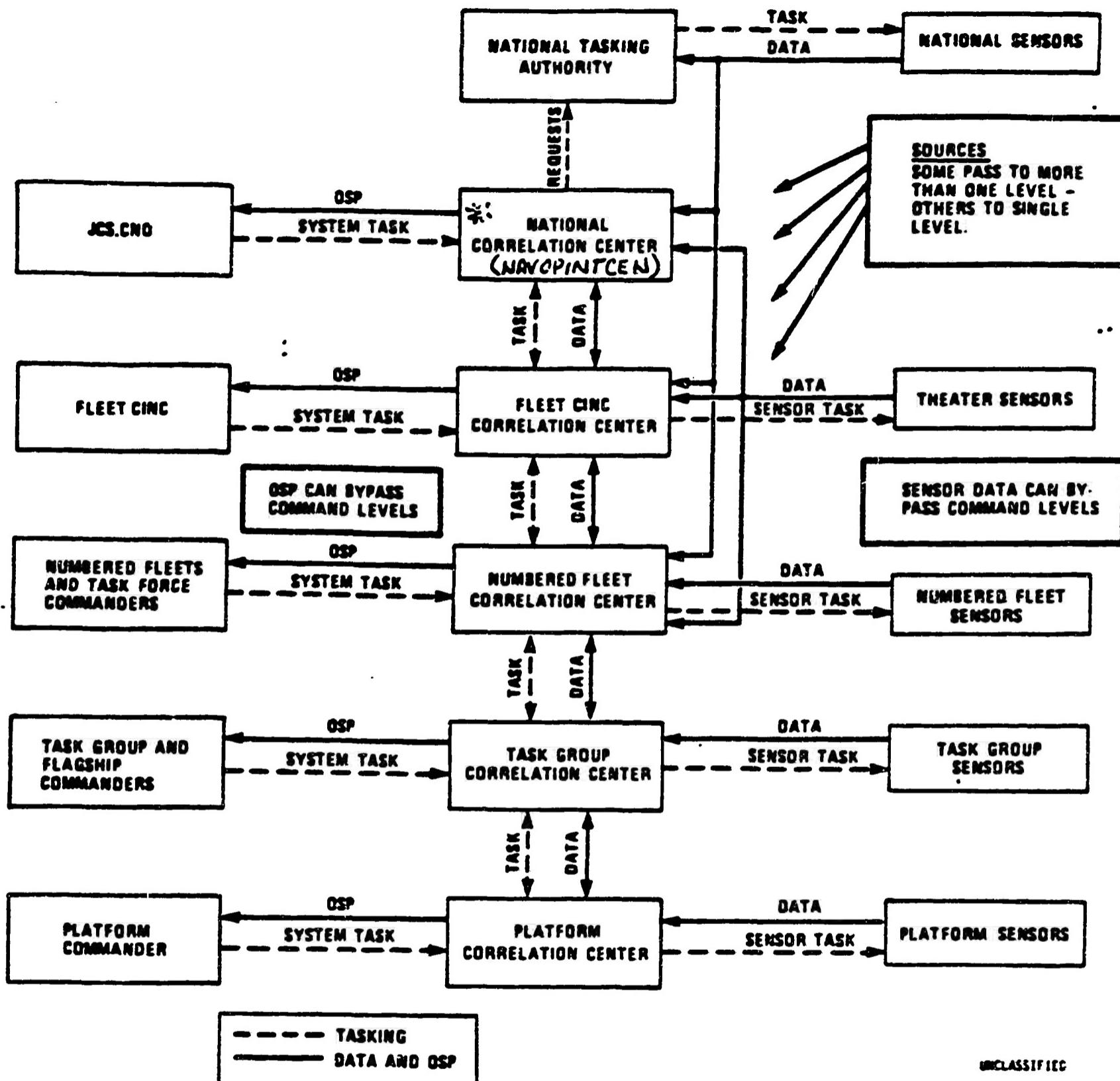


Figure 2.1. Structure of Composite System (U)

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The composite system concept most nearly satisfies the six characteristics of an ideal ocean surveillance system. The essential features of the composite system are:

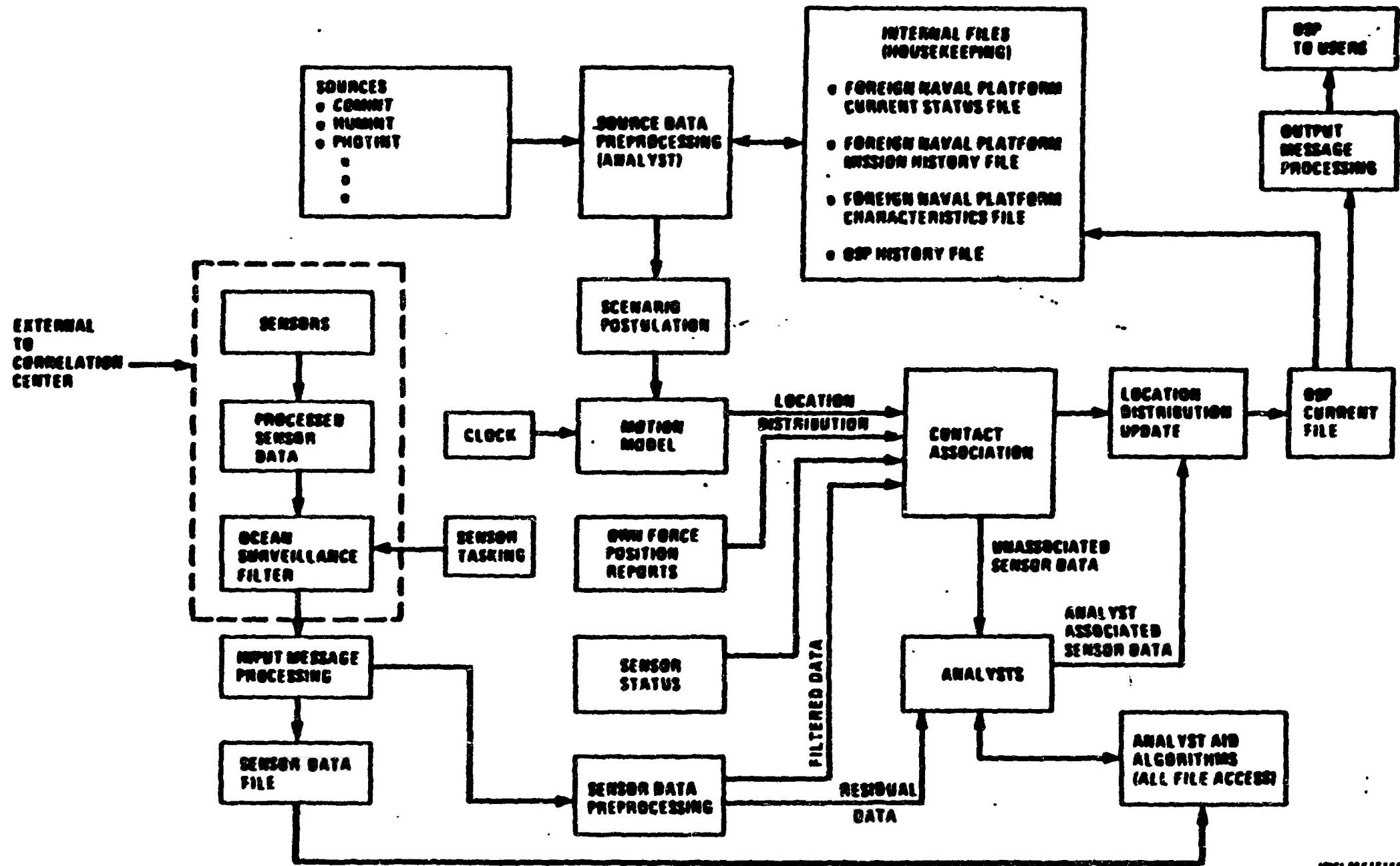
- Each theater area has centralized control of the ocean surveillance functions within the theater
- Each major user command level has a correlation center to support users at that level
- Sensor system outputs are directed to the correlation center at the user command level responsible for the geographic area of sensor coverage
- The correlation center has the authority, delegated by the command at that level, to routinely task the sensor systems at that command level
- The correlation centers are interconnected through communication links to provide for rapid exchange of data
- The system provides flexibility such that the Ocean Surveillance Product (OSP), sensor data or other information may be routed to any command level upon request.

The basic structure of the composite system is shown in Figure 2.1. A correlation center is shown at each of the five user levels and sensor system outputs at each level are directed to the correlation center at the same level. Users receive the Ocean Surveillance Product from the correlation center on their level. The national level correlation center is linked to each Fleet Commander-in-Chief (CINC) correlation center; in turn each of these is linked to each subordinate level.

Since the specific needs and requirements for ocean surveillance are naturally divided into geographic areas, the command and control of ocean surveillance functions should be centralized by theater areas and at each user level. Once information is received at a level, it can be correlated with other information available there and then passed to users at that level or to correlation centers at other levels.

Tasking and reporting for the system is performed through the correlation centers at each level of command shown. It is explicitly noted that under the concept, the communications and procedures will permit users to directly task the Ocean Surveillance System by stating their requirements to the correlation center. In turn the correlation center, through command channels, tasks sensor systems as necessary. This permits more effective allocation of resources. Provision is made for the direct routing of sensor data to users in time critical situations.

A basic premise is that each successive higher echelon correlation center encompasses all of the area and targets of interest of all lower echelon centers. The correlation centers provide the OSP to all ashore and afloat users through their respective correlation facilities. Each of the centers performs the same functions with different resolution and operates in a similar manner - i.e., they produce the OSP for all users at their respective command levels for the areas of responsibility of those command levels.



Information Flow in Correlation Centers (U)